NORTH CAROLINA DIVISION OF AIR QUALITY

Air Permit Review

Permit Issue Date:

Region: Mooresville Regional Office
County: Cleveland
NC Facility ID: 2300377
Inspector's Name: Carlotta Adams
Date of Last Inspection: 06/17/2015
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Clearwater Paper Corporation - Shelby Converting Plant

Facility Address:
Clearwater Paper Corporation - Shelby Converting Plant
671 Washburn Switch Road
Shelby, NC 28150

SIC: 2611 / Pulp Mills
NAICS: 32211 / Pulp Mills

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: 02D .0503, 02D .0515, 02D .0516, 02D .0521, 02D .0524, 02D .0958, 02D .1806
NSPS: Subpart Dc, Subpart IIII, Subpart JJJJ
NESHAP: GACT Subpart ZZZZ
PSD:
PSD Avoidance:
NC Toxics: 02Q .0711, 02D .1100
112(r):
Other:

Contact Data

Facility Contact	Authorized Contact	Technical Contact
George Beckey, Jr. EH&S Manager (704) 476-3814 671 Washburn Switch Road Shelby, NC 28150	James Jordan Plant Manager (704) 476-3801 671 Washburn Switch Road Shelby, NC 28150	George Beckey, Jr. EH&S Manager (704) 476-3814 671 Washburn Switch Road Shelby, NC 28150

Application Data

Application Number: 2300377.13A; 2300377.15A; and 2300377.16A
Date Received: 02/18/2013; 10/08/2015; and 03/29/2016, respectively
Application Type: Modification; State Renewal (consolidated); and Modification (consolidated), respectively
Application Schedule: TV-1st Time

Existing Permit Data
Existing Permit Number: 10139/R04
Existing Permit Issue Date: 06/13/2014
Existing Permit Expiration Date: 01/31/2016

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2014	0.3200	29.10	24.33	156.66	218.57	4.35	2.50 [Methanol (methyl alcohol)]
2013	0.3000	28.61	11.91	155.01	216.80	1.25	1.16 [Methanol (methyl alcohol)]
2012	0.0241	1.75	0.6592	10.61	50.97	0.0232	0.0176 [Acetaldehyde]

Review Engineer: Matthew Mahler

Review Engineer's Signature: **Date:**

Comments / Recommendations:
Issue 10139T05
Permit Issue Date: TBD
Permit Expiration Date: TBD

1. Purpose of Application

This permit modification is for the processing of the following permit applications (submitted separately):

Permit Application 2300377.13A (Title V First Time Application) - Air Permit No. 10139R01 was issued on February 14, 2012 and had an expiration date of January 31, 2016. With the associated modification to add equipment, the permit also reclassified the facility from a small facility to a Title V facility operating under a state permit. The permit contained a requirement that a Title V application be submitted within 12 months of the permit issuance. This application fulfilled that requirement. It should be noted that this application contained a request for portions to remain confidential. That material has been removed from the public file and will be kept in the confidential files in the Raleigh Central Office.

As part of the first time Title V application, the applicant requested the following additions/deletions/modifications to the existing permit:

1. remove the reference to a second, unconstructed emergency generator (ID No. CPDEG02);
2. update of the heat inputs and potential emissions calculations associated with the TAD1 and TAD2 burners within the paper machine, update stack heights and diameters, and update NC toxic emission limits associated for the same equipment; and
3. update the list of insignificant activities (Note that application contained a listing of activities exempted by both 15A NCAC 02Q .0503(7) and (8). By procedure, only applicable .0503(8) activities are listed).

Permit Application 2300377.15A (State Renewal) – The applicant submitted an application on October 8, 2015 for a permit renewal without modification of the state operating permit per specific permit condition A.2 of permit No. 10139R04. Because the renewal application was received at least ninety days before the permit expiration date, the current permit will remain in effect, regardless of expiration date, until this application is approved or denied. The processing of the renewal will be consolidated into the processing of the first-time Title V permit.

Permit Application 2300377.16A (State Modification)/Applicability Determination No. 2552 (DAQ January 16, 2015 response letter) – The applicant submitted an application for modification of the current permit on March 29, 2016 to add a poly vinyl alcohol (PVOH) make down system (ID No. CPDS09) for dissolving granular PVOH in water to make a solution used in making paper, a wastewater system, and several insignificant activities. This modification was the subject of an applicability determination where DAQ determined that a permit modification was not necessary for the operation of this source per 15A NCAC 02D .0102(c)(2)(E). Since this original determination, DAQ has made a policy change with respect to insignificant activities that required the submittal of an application prior to the operation of the PVOH system. This application fulfills that requirement.

In addition to this modification request, the applicant requested permit modifications that voided requests made in the Title V first-time application with regards to the classification of converting operations as qualified insignificant activities and made additions to the insignificant activities list (e.g., wastewater treatment system and reclassification of former permitted equipment). The processing of this permit application will be consolidated into the processing of the first-time Title V application. It should be noted that this application contained a request for portions to remain confidential. That material has been removed from the public file and will be kept in the confidential files in the Raleigh Central Office.

2. Facility Description

The Clearwater facility is a tissue manufacturing and converting plant, which means the facility produces parent rolls and converts them into finished consumer bath tissue, paper towel and napkin paper products. Finished products include bathroom tissue, napkins and household paper towels and are made for various store labels. Parent paper products consist of reels of tissue paper product received from off-site, as well as tissue paper products manufactured onsite. The paper products, which are manufactured onsite, originate as both baled pulp and recycled tissue paper generated by the converting process.

Pulp is delivered to the facility via rail and via truck. These materials are then processed in the virgin pulpers with the addition of one bag of sodium bicarbonate and fed into the paper machine. Converting tissue scrap (broke) is processed in the pulper (used for broke) with the addition of one bag of oxone (monopersulphate) and then processed into the paper machine during the production of towel tissue. Because only paper products are used and no wood or wood chips are used, the facility is not a "kraft" pulp mill. The pulper and paper machine portion of this facility essentially begins at the bleaching operation of a typical chemical pulp and paper mill. The four control devices associated with the paper machine[1] are operated in parallel and each has a separate emissions release point.

The papermaking process is a physical process where dilute pulp slurries are pressed between two rotating fabric belts. These belts travel over vacuum slots that remove excess water and then through a pair of heater rollers that dry the paper. Different recipes are used for bath tissue and towel tissue, depending on what papers are being made. Pulp derived from softwoods are used for strength, and pulp derived from hardwoods are used for softness and eucalyptus for fluffiness[2].

The bath tissue line and paper towel lines are similar in operation. Parent tissue rolls are loaded and fed into the winding machine depending on the ply and product needs. These papers are embossed and fluffed as needed and placed on rolls. The papers are cut as appropriate. Small amounts of glue are used at the beginning and end of each roll.

Bath/Towel Line 6 is used to produce towel tissue only. All line use small amounts of glue and date coding inks. From the use of inks and glues, volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and North Carolina toxic air pollutants (TAPs) are emitted in small quantities. Napkin Line 1 is used for converting parent napkin paper rolls into finished quarter fold consumer napkins that are packaged, unitized, stored and shipped. The printing is by ink jet and the method of heating is electric. Household Towel Line 2 makes household towels only and Bath Tissue Line 3 makes bath tissue only. Bath/Towel Lines 1, 4, and 5 make paper towels and bath tissue.

The facility is currently operating on a schedule of 24 hours per day and 7 days per week. The facility employs approximately 270 employees.

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[1] Former mist exhaust separator, TAD mist exhauster separator, spray boom mist exhaust separator, and dust venture scrubber-separator.

[2] Carlotta Adams, Melinda Wolanin, and Bruce Ingle. NC DAQ air quality inspection report dated 09/05/2013 (as amended by Permittee during processing of first-time Title V application).

3. History/Background/Application Chronology

February 14, 2012	Air Permit No. 10139R01 issued for the addition of a paper machine (ID No. CPDPM01), two natural gas direct-fired through air dryer (TAD) burners (ID Nos. CPDTAD01 and CPDTAD02), a pulper (ID No. CPDPULP01), a natural gas-fired boiler (ID No. CPDBOIL01), and a natural gas-fired emergency generator (ID No. CPDEG02). This modification also changes the fee class from small to Title V and required the submittal of first-time Title V permit application within one year of permit issuance.
February 18, 2013	Permit application 2300377.13A for first-time Title V permit received. The permit application was initially assigned to Ms. Judy Lee.
June 28, 2013	Air Permit No. 10139R02 issued for the addition of napkin line 1.
September 20, 2013	Air Permit No. 10139R03 issued for the addition of household towel line 5 to produce paper towels and tissue.
June 13, 2014	Air Permit No. 10139R04 issued for the addition of bath/towel line 6 to produce bath and towel tissue.
October 28, 2015	Permit application 2300377.15A for a State-operating permit renewal received. The permit application was initially assigned to Ms. Judy Lee.
November 12, 2015	Permit application 2300377.13A for first-time Title V permit and permit application 2300377.15A for a permit renewal were re-assigned to Mr. Matthew Mahler.
February 2, 2016	In a phone conversation, Mr. Mahler spoke with Mr. George Beckey, EH&S Manager and Facility Contact for Clearwater Paper, requesting a clarification of Paper Machine PM emission values listed on Form B in the first-time Title V permit application.
February 24, 2016	Emailed draft permit and permit review to Permittee, MRO, SSCB and Supervisor for comments.
February 26, 2016	Mark Cuilla, Permitting Supervisor, provided comments on the draft permit.
March 11, 2016	Mark Cuilla discussed the draft permit with Mr. George Beckey, EH&S Manager and Mr. Ted White, RTP Environmental Associated, Inc. via phone conference. Applicant walked through their comments on both the draft permit and associated technical review. They also discussed the pending application for the installation of the PVOH make down system. Mark Cuilla advised them to submit all comments in writing and that he would generate a second draft for review prior to public notice and EPA review.
March 28, 2016	Comments on draft permit and associated technical review received by Mark Cuilla via email. (See section 12 of this Document for a summary of Permittee comments and DAQ responses.)

March 29, 2016	Permit application 2300377.16A received in the Mooresville Regional Office and forwarded to RCO for processing as a state modification for the addition of PVOH make down system.
April 8, 2016	Mooresville Regional Office comments on application 2300377.16A received via email. These will be addressed as necessary and included in the final permit file.
April 27, 2016	Mark Cuilla requested that the applicant provide additional technical information (i.e., applicability calculations) for insignificant source status for those tanks qualifying as insignificant activities and for the addition of the wastewater system (ID No. CPDPM01). Applicant was also provided a second draft of the permit to begin review to responses received by DAQ thus far in the processing of the first-time TV application.
May 11, 2016	Reminder email sent to applicant requesting response to additional information request and response to review of second draft of permit and associated review.
June 2, 2016	Applicant provided notification of a change in responsible official for the facility to take effect on June 6, 2016. Mr. Vince Reese is being replaced with Mr. James Jordan as responsible official for the Shelby Plant. IBEAM and all associated records will be modified accordingly once new A1 form is received by DAQ.
June 7, 2016	Applicant provided response to additional information request of April 27, 2016. It should be noted that this submittal contained a request for portions to remain confidential. That material has been removed from the public file and will be kept in the confidential files in the Raleigh Central Office. Mark Cuilla verified information receipt and again requested
####, 2016	Draft permit and associated technical review sent to 30-day public comment period and concurrent 45-day EPA review period.

4. Permit Modifications and Changes

The following table describes the changes to the current permit as it is updated to the Title V format.

Pages	Section	Description of Changes
-	Cover letter	Transitioned to the cover letter format for Title V permits from that of the state permit. Included references to all applications associated with this action.
-	Attachment I	Created list of applicable insignificant activities per 15A NCAC 02Q .0503(8) as provided by applicant in the 1st time TV application as well as the modification to add the PVOH operation.
-	Attachment II	Created list of changes associated with the creation of the 1st time TV permit.
-	Cover	Created cover page to 1st time TV permit including references to all applications associated with this action.
3-4	Equipment List	Created list of all permitted equipment based on current state permit and all associated active permit applications.

Pages	Section	Description of Changes
5-7	Section 2.1 A	Specific limitations and conditions associated with: -paper machine -natural gas-fired TAD burners -PVOH system
7-8	Section 2.1 B	Specific limitations and conditions associated with: -natural gas-fired boiler
9	Section 2.1 C	Specific limitations and conditions associated with: -all gluing and printing operations in the converting building
9-13	Section 2.2	Multiple emission source(s) specific limitations and conditions associated with facility-wide affected sources
14-22	Section 3	General Conditions (v4.0 12/17/15)
23	Attachment	List of Acronyms

Discussion of Insignificant Activities:
In the first-time Title V permit application, Clearwater Paper provided a listing of insignificant sources on Form D4, "Exempt and Insignificant Activities Summary", which were to be added to the permit. Each was checked for insignificant activity applicability and confirmed. It should be noted that the natural gas-fired emergency generator No. 1 and the diesel-fired fire pump engine were added to the Insignificant Activities list because their potential emission rates were found to be below the limits established in 15A NCAC 02Q .0503(8), "Insignificant activities because of size or production rate". Because these units were once permitted equipment per policy, the current permit state operating permit included specific conditions and limitations that apply to these units. Now that the policy affecting insignificant activities has been archived, those sources now qualify as insignificant and therefore the associated conditions can be removed. As an aide to the applicant and regional office, those former permit conditions have been attached (Attachment I) to this permit review. Those activities exempt by category (15A NCAC 02Q .0503(7)) have not been included in this list.

Discussion of Modification
As noted above, the applicant originally submitted an applicability determination (No. 2552) with a request that DAQ make a determination on whether the addition of a PVOH Make Down System (equipment associated with operations for dissolving bags of solid PVOH in water) would require the submittal of a permit modification prior to it being installed at the facility. Based on the information provided at that time, DAQ determined that because potential emissions of methanol (a HAP/VOC) were expected to be less than five tons per year, the PVOH system qualified as an insignificant activity per 15A NCAC 02Q .0102(c)(2)(E). Since that determination and as noted above in the discussion for insignificant activities, DAQ has archived its policy of allowing the 02Q .0102 permit exemptions to be extended to Title V facilities. Rather, Title V facilities insignificant activity status is based solely on 15A NCAC 02Q .0503(8) which reads "…whose potential emissions of hazardous air pollutants before air control devices are each below 1,000 pounds per year." Thus, DAQ reversed its original determination of insignificant activity status and required that the applicant submit a permit application to incorporate these sources in the permit.

Per 2300377.16A, potential methanol emissions from this source are estimated to be 1.3 tons per year. The source has been listed in the permit and is being subjected to the requirements for visible emissions and VOC work practice standards according to the application.

5. Regulatory Review

Clearwater Paper is subject to the following regulations.

15A NCAC 02D .0503, Particulates from Fuel Burning Indirect Heat Exchangers – For the purposes of this rule, the maximum heat input shall be the total heat content of all fuels which are burned in a fuel burning indirect heat exchanger, of which the combustion products are emitted through a stack or stacks. The sum of maximum heat input of all fuel burning indirect heat exchangers at a plant site which are in operation, under construction, or permitted pursuant to 15A NCAC 02Q, shall be considered as the total heat input for the purpose of determining the allowable emission limit for particulate matter for each fuel burning indirect heat exchanger.

> *Indirect heat exchanger* means any equipment used for the alteration of the temperature of one fluid by the use of another fluid in which the two fluids are separated by an impervious surface such that there is no mixing of the two fluids.

The boiler (ID No. ES-CPDBOIL01) is the only "indirect heat exchanger" at the facility. Its burner design gross heat input is 77.6 million Btu per hour; thus, the maximum heat input of "all fuel burning indirect heat exchangers" is, **Q = 77.6** million Btu per hour heat input capacity. This equates to an allowable emission limit of 0.35pounds per million Btu heat input for the-boiler as shown below.

$$\mathbf{E = 1.09Q^{-0.2594} = 1.09(77.6)^{-0.2594} = 0.35\ lbs/million\ Btu}$$

Where, E = allowable emission rate in pounds per million Btu, and
Q = maximum heat input in million Btu per hour

Emission Guarantees for:
Particulate = 0.005 lbs/million Btu * 77.6 million Btu/hr = 0.388 lbs/hr.

Compliance is demonstrated with this regulation since worst-case* estimated emissions are less than the allowable. (*Worst-case total particulate matter emissions are estimated to be 0.0076 pounds per million Btu while firing natural gas, which is less than the allowable of 0.35 lbs/million Btu.)

*Based on EPA's AP-42 Chapter 1 Introduction to External Combustion Sources, Table 1.4-2. Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion, the PM (Total) Emission factor is 7.6 lb/10^6 standard cubic feet (scf).

7.6 lb/10^6 scf / 1,050 Btu/scf[1] * 10^6 BTU/million Btu = 0.00724 lbs/million Btu
7.6 lb/10^6 scf / 1,008 Btu/scf[2] * 10^6 BTU/million Btu = 0.00754 lbs/million Btu

[1]Appendix A of AP-42 has a typical heating value for natural gas of 1,050 Btu/scf. Section 1.4 states "The average gross heating value of natural gas is approximately 1,020 British thermal units per standard cubic foot (Btu/scf), usually varying from 950 to 1,050 Btu/scf."
[2] Form B1 – Emission Source (Wood, Coal, Oil, Gas, Other Fuel-fired Burner) of the application has a heating value of 1,008 Btu/scf and sulfur content of zero.

0.00724 lbs/million Btu * 77 million Btu/hr = 0.557 lb/hr * 8760 hrs/yr * ton/2000 lbs = **2.44 tpy PM**
0.00754 lbs/million Btu * 77 million Btu/hr = 0.581 lb/hr * 8760 hrs/yr * ton/2000 lbs = **2.54 tpy PM**

15A NCAC 02D .0515, Particulates from Miscellaneous Industrial Processes - The pulper (ID No. CPDPULP01) and the paper machine (ID No. CPDPM01) are currently listed as being subject to 02D .0515. This regulation defines allowable emission rates for particulate matter (PM) from any stack, vent, or outlet, resulting from any industrial process for which no other emission control standards are applicable. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$

Where: E = allowable emission rate in pounds per hour
P = process rate in tons per hour

The table below shows the process rate per Form B9, allowable PM emission rate and potential PM emissions rate of the affected sources. The process rates are the maximum design capacity of the pulper and of the paper machine, which were provided by the applicant.

Source ID	Process Rate (ton/hr)	Allowable PM Emission Rate (lb/hr)	Potential PM Emission Rate (lb/hr)	Compliance Demonstrated?
CPDPULP01	2.6	7.78	0.0	Yes
CPDPM01	14	24.0	7.8	Yes

Regarding the paper machine (ID No. CPDPM01), Form B has a PM emission rate of 92 lb/hr potential before controls and after controls of 7.8 lb/hr PM. Based on a review of the supporting documentation for the control devices provided with the application submittal and the additional information provided via email, it is reasonable to expect an overall efficiency of 90-93% for PM; thus, compliance is expected for total PM.

Per Form B the paper machine - TAD burners are used for process heat, natural gas direct-fired and equipped with low NOx burners.

-TAD 1 Burner (105 million Btu/hr)
-TAD 2 Burner (55 million Btu/hr)

PM emissions from the TAD burners are equal to 1.19 lbs/hr (0.78 + 0.41 lb/hr, respectively) and included in the total PM emission rate above of 7.8 lb/hr after controls. The potential uncontrolled emissions from the paper machine are much less than the allowable and thus the sources are expected to be in compliance.

Since the submittal of the first-time Title V application, the applicant has re-evaluated the emissions from the pulper (ID No. CPDPULP01) as described above. This re-evaluation (including a discussion of bleaching agents used) has confirmed that the unit is eligible for insignificant activity status (VOC and HAP emissions each less than the source thresholds in 15A NCAC 02Q .0503(8)). Therefore the first-time Title V permit will list the pulper as an insignificant activity.

15A NCAC 02D .0516, Sulfur Dioxide Emissions from Combustion Sources - The natural gas-fired boiler (ID No. CPDBOIL01) is subject to 02D .0516. This regulation limits the emissions of sulfur dioxide (SO_2) from any source of combustion that is discharged from any vent, stack, or chimney to not exceed 2.3 pounds of sulfur dioxide per million Btu heat input. A source subject to an emission standard for sulfur dioxide in Rules 02D .0524, .0527, .1110, .1111, .1205, .1206, .1210 or .1211 of this Subchapter shall meet the standard in that particular rule instead of the standard in this Rule.

The natural gas-fired boiler (ID No. CPBOIL01) is subject to 02D .0524. However, neither 02D .0524 nor .1111 specify an emission standard for sulfur dioxide from natural gas combustion; therefore, by default, emissions from the boiler are subject to 02D .0516 when combusting natural gas. Allowable emissions per this 02D .0516 are 2.3 pounds per million Btu heat input. Using AP-42 Table 1.4-2 (rev. 07/98), the sulfur dioxide emissions are estimated to be 0.0006 lb SO_2 per million Btu. As shown, natural gas is inherently low in sulfur and SO_2 emissions are expected to be in compliance with this rule.

Compliance is demonstrated with this regulation since estimated emissions for all subject sources are less than the allowable.

15A NCAC 02D .0521, Control of Visible Emissions - The natural gas direct-fired TAD burners No. 1 and No. 2 (ID Nos. CPDTAD01 and CPDTAD02), the natural gas-fired boiler (ID No. CPDBOIL01), and paper machine (ID No. CPDPM01) are subject to 02D .0521. This regulation states that for sources manufactured after July 1, 1971, visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period, except as specified in 15A NCAC 02D .0521(d).

This Rule shall apply to all fuel burning sources and to other processes that may have a visible emission. However, sources subject to a visible emission standard in Rules .0506, .0508, .0524, .0543, .0544, .1110, .1111, .1205, .1206, .1210, or .1211 of this Subchapter shall meet that standard instead of the standard contained in this Rule.

The TAD burners are not subject to 02D .0524, NSPS or 02D .1111, MACT. Therefore, the TAD burners are subject to 02D .0521 when combusting natural gas. The natural gas-fired boiler (ID No. CPBOIL01) is subject to 02D .0524. However, neither 02D .0524 nor .1111 specify an emission standard for visible emissions from natural gas combustion; therefore, by default, emissions from the boiler are subject to 02D .0521 when combusting natural gas. No visible emissions are expected from the combustion of natural gas. No monitoring, recordkeeping, or reporting is required when natural gas is fired.

Per Form B, the manufacture date of the TAD burners and the boiler are 2012. Therefore, the subject sources are subject to the 20 percent opacity limit.

Per Form B, the manufacture dates of the paper machine is 2011/2012. Therefore, the paper machine is subject to 20 percent opacity limit. Compliance is expected.

15A NCAC 02D .0958, Work Practices for Sources of VOC - This regulation is applicable facility-wide. This Rule applies to all facilities that use volatile organic compounds as solvents, carriers, material processing media, or industrial chemical reactants, or in other similar uses, or that mix, blend, or manufacture volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions. Compliance has been demonstrated as documented in the most recent three compliance inspections conducted in 2013, 2014, and 2015. Continued compliance is anticipated.

15A NCAC 02D .1100, Control of Toxic Air Pollutants and 15A NCAC 02Q .0711, Emission Rates Requiring a Permit - See Section 7 for further discussion regarding air toxics.

15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions - This regulation is applicable facility wide and is state-enforceable only. 02D .1806 requires Clearwater Paper to provide for the control and prohibition of objectionable odorous emissions. This rule shall apply to all operations that may produce odorous emissions that can cause or contribute to objectionable odors beyond the facility's boundaries.

Under 02D .1806 (2)(d), kraft pulp mills are exempted from 02D .1806. Because this facility is NOT a kraft pulp mill as discussed previously, the facility is subject to 02D 1806. Compliance with the odor rule has been demonstrated as documented in the most recent compliance inspection conducted in 2015. Continued compliance is anticipated.

15A NCAC 02D .1111, Maximum Achievable Control Technology (MACT) - The natural gas-fired emergency generator No. 1 (ID No. IS-CPDEG01) and the diesel-fired fire pump engine (ID No. IS-CPDFP01) are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63 Subpart ZZZZ. More discussion is provided in Section 6.

15A NCAC 02Q .0317, Avoidance Conditions – Under the current permit (Air Permit No. 10139R04), Clearwater Paper has accepted the following avoidance conditions for the following regulation, 15A NCAC 02D .0544, Prevention of Significant Deterioration (PSD) Requirements for Greenhouse Gases. 02D .0544 has been updated recently and the facility is no longer subject to this regulation. More discussion regarding this avoidance condition is presented in Section 6.

6. NSPS, NESHAP/MACT, NSR/PSD, 112(r), CAM

NSPS

The Permittee is currently subject to the following NSPS standards:

-Natural gas-fired boiler – NSPS Subpart Dc;
-Natural gas-fired emergency generator – NSPS Subpart JJJJ; and
-Diesel-fired fire pump engine – NSPS Subpart IIII.

This permit does not affect the status with respect to NSPS.

Natural gas-fired boiler

The natural gas-fired boiler equipped with low-NOx burners (ID No. CPDBOIL01) is subject to 40 CFR Part 60 "Standards of Performance for New Stationary Sources", Subpart Dc "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units". Per Forms B & B1, the boiler (ID No. CPBOIL01) was manufactured in 2012 and the boiler's burner design is 77.6 million Btu/hr. Thus, the boiler's maximum design heat input capacity is less than 100 million Btu/hr, but greater than or equal to 10 MMBtu/hr with construction, modification, or reconstruction completed after June 9, 1989; thus, NSPS Subpart Dc applies.

The boiler is NOT fired on coal, wood, or oil. NSPS Subpart Dc does not specify an emission limit for natural gas-fired sources; therefore, the boiler is not subject to the PM or SO_2 emissions standards, testing methods, or emissions monitoring requirements in NSPS Subpart Dc. Per 40 CFR §60.48c(g)(2), the Permittee must record and maintain records of the amounts of each fuel combusted during each month for the boiler. The records must be maintained on-site for a period of two (2) years. Additionally, the facility must submit the fuel usage records for each six-month period within 30 days after the end of each period.

Thus, the facility is only required to keep fuel records for the boiler.

Current shell language/guidance states that "In addition to any other recordkeeping required by 40 CFR §60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of each fuel fired during each day." Per EPA Guidance daily recordkeeping may be relaxed to monthly for No.2 fuel oil, natural gas and wood.

In addition, pursuant to 40 CFR 60.7(a)(3) the Permittee was required to submit a written notification of the actual date of initial startup of the boiler within 15 days of such date. This notification was received by NC DAQ on December 10, 2012 and was reviewed as complete.

Natural gas-fired emergency generator
The natural gas-fired emergency generator (ID No. IS-CPDEG01) is subject to 40 CFR Part 60 "Standards of Performance for New Stationary Sources", Subpart JJJJ "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines". Per Form B2, the emergency generator has a rating of 77.3 horsepower (HP) output; 45 kilowatts (kW) output; and is a natural gas-fired, rich burn emergency internal combustion engine (ICE).

The date of manufacture is 2011. This regulation is applicable to owners and operators of stationary spark ignition (SI) ICE that commence construction after June 12, 2006, where the emergency stationary SI ICE is manufactured on or after January 1, 2009 with a maximum engine power greater than 19 kW.

To maintain engine status as an emergency ICE per NSPS Subpart JJJJ, Clearwater Paper will operate for a maximum of 100 hours per year for purposes of maintenance checks and readiness testing. No more than 50 of the 100 hours per year will be for non-emergencies and will count as part of the 100 hours per year of maintenance checks and readiness testing.

The emergency generator No. 1 must meet the following emission limits found in Table 1 of Subpart JJJJ for emergency SI ICE:

Pollutant	Subpart JJJJ Emission Limit (g/HP-hr)	Manufacturer's Exhaust Emission Data Sheet found on Cummins Power Generation Website for 50GGPC 60 Hz Spark Ignited Generator Set (g/HP-hr)
NOx + HC	10	6.9+2.0 = 8.9
CO	387	34.5

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements. Owners and operators of all stationary SI ICE must keep records of all notifications submitted to comply with this subpart and all documentation supporting any notification, and maintenance conducted on the engine. If the stationary SI ICE is a certified engine, documentation from the manufacturer must be kept that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

Based on the manufacturers' data summarized above, compliance with 15A NCAC 02D .0524 is expected. In addition, vendor specification sheet provided with the application contains an engine certification by US EPA stating "Engine certified to U. S. EPA SI Stationary Emission Regulation 40 CFR, Part 60 for emergency (standby) application."

Diesel-fired fire pump engine
The diesel-fired fire pump engine (ID No. IS-CPDFP01) is subject to 40 CFR Part 60 "Standards of Performance for New Stationary Sources", Subpart IIII "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)". Per Form B2, the fire pump engine has a rating of 526 horsepower (HP) output; 448 kilowatts (kW) output.

The date of manufacture of the fire pump engine is 2010. This regulation is applicable to owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006, and is not fire pump engines, or is manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

To meet the requirements of this regulation, the diesel-fired fire pump engine (ID No. IS-CPDFP01) must meet the emission standards listed in Table 4 of the subpart as shown below and the manufacturer of the engine must certify the engine.

Pollutant	Emission Limit (g/kW-hr)	Manufacturer's Certified Data (g/kW-hr)
NOx + HC	4.0	3.4
PM	0.20	0.1

Since October 1, 2010, the facility has been required to use fuel that contains less than or equal to 15 ppm sulfur. The facility is required to and has installed a non-resettable hour meter on the subject fire pump engine. The facility is expected to continue to be in compliance with 15A NCAC 02D.0524.

NESHAP/MACT

NESHAP regulations or 15A NCAC 02D .1111 "Maximum Achievable Control Technology" **DO NOT** apply to this modification and renewal. No HAP approaches the 10 tons per consecutive 12-month period limit and the combined HAP emissions are far lower than 25 tons per consecutive 12-month period.

GACT Subpart ZZZZ
"NESHAP for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63," Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary RICE located at major and area sources of HAP emissions. Based on the facility's potential to emit, this facility is not a major source of HAPs. However, GACT Subpart ZZZZ applies to area sources and does apply to the facility's fire pump engine and emergency generator.

As per 40 CFR Part 63.6590(c), an affected source that meets the requirements of NSPS Subpart IIII for compression ignition engines or NSPS Subpart JJJJ for spark ignition engines meets the requirements of GACT Subpart ZZZZ. Compliance is expected.

GACT Subpart JJJJJJ
As specified in 40 CFR 63.11195(e), gas fired boilers are not subject to "NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters for Area Sources," 40 CFR 63 Subpart JJJJJJ, or GACT 6J. Thus, the facility's natural gas-fired boiler equipped with low-NOx burners (ID No. CPDBOIL01), which only fires natural gas, is not subject to GACT 6J.

NSR/PSD

This facility is currently a minor source under Prevention of Significant Deterioration (PSD). The facility is located in Cleveland County, which is designated as attainment for the 2008 8-hour ozone standard. The 1997 8-hour ozone standard was revoked on April 6, 2015 as per EPA's Green Book website. Thus, for NSR, the PSD rules will be followed.

Based on NC DAQ's Planning and Attainment for $PM_{2.5}$ Nonattainment Areas, the only counties previously designated as nonattainment for the 1997 annual $PM_{2.5}$ national ambient air quality standards (NAAQS) were Catawba, Davidson and Guilford. Cleveland County is classified as "Attainment" for North Carolina—PM2.5 (Annual NAAQS). Effective November 18, 2011, the USEPA re-designated the Hickory-Morganton-Lenoir $PM_{2.5}$ nonattainment area to attainment. All North Carolina counties are in attainment for the 2012 $PM_{2.5}$ standard.

According to the eCFR referenced above under VOC emissions, this designation has not changed; hence, Cleveland County is classified as "Attainment" for North Carolina—PM2.5 (Annual NAAQS). In addition, the entire state is designated as "Unclassifiable/Attainment" for North Carolina—PM2.5 [24-hour NAAQS] and for North Carolina—TSP the entire State is designated as "Better than national standards."

PPG triggered the PSD minor source base line date for PSD increment tracking in Cleveland County on April 30, 1979 for particulate matter (PM10) emissions and February 10, 1978 for sulfur dioxide (SO2) emissions. Cleveland Co. Generating Facility triggered the PSD minor source baseline date on April 21, 2008 for NOx.

Potential emissions from the proposed emission sources associated with this modification were determined in Section 5 above. No pollutants exceeded the 1 lb/hr threshold; thus, emission tracking for PSD Class II increment purposes is NOT required.

Under the current permit (Air Permit No. 10139R04), Clearwater Paper has accepted the following avoidance conditions for the following regulation, 15A NCAC 02D .0544, Prevention of Significant Deterioration Requirements for Greenhouse Gases. Per Form D1, the facility-wide CO_2 equivalent (CO_2e) potential is 99,748 tpy. A recent update to 02D .0544 indicates that a major stationary source or major modification shall not be required to obtain a PSD permit on the sole basis of its greenhouse gases emissions. All other new source review pollutants are below the PSD major source thresholds. Thus, the facility is no longer subject to this regulation, and this stipulation will be removed from the permit.

112(r)

Per Form A3 entitled "112(r) Applicability Information", the facility is not subject to 40 CFR Part 68 "Prevention of Accidental Releases" – Section 112(r) of the Federal Clean Air Act. The facility is not subject to this rule because it does not store one or more of the regulated substances in quantities above the thresholds in the Rule. This permit modification does not affect the status with respect to 112(r).

CAM

PM emissions from the paper machine (ID No. CPDPM01) are controlled by the former mist exhaust separator (ID No. CPDFORMERMES), the TAD Mist Exhaust Separator (ID No. CPDTADMISTMES), the spray boom mist exhaust separator (ID No. CPDSPRAYMES), and the dust venturi scrubber-separator (ID No. CPDDUSTVSS). PM_{10} emissions from the paper machine (ID No. CPDPM01) are controlled by the dust venturi scrubber-separator (ID No. CPDDUSTVSS). Compliance Assurance Monitoring (CAM) does not apply because all of the facility's control devices "see" potential pre-controlled PM_{10} emissions less than 100 tons per year as shown in the table below.

Emission Source ID Nos.	Control Device ID Nos.	Pre-controlled PM10 Emissions (tpy)	Comments
CPDPM01	CPDFORMERMES	55.7	Based on an engineering estimate.
CPDPM01	CPDTADMISTMES	55.7	Based on an engineering estimate.
CPDPM01	CPDSPRAYMES	55.7	Based on an engineering estimate.
CPDPM01	CPDDUSTVSS	55.7	Based on an engineering estimate.

7. Facility Wide Air Toxics

The facility is subject to 02Q .0711 and 02D .1100. The facility emits air toxics from the pulpers, paper machine, converting building operations and combustion sources. Air toxics are emitted from the inks and glues used in the conversion of parent paper products into finished consumer products. According to the June 2015 compliance inspection report, small amounts of glue are used at the beginning and end of each paper towel and bath tissue roll.

The facility submitted Application No. 2300377.11A on September 1, 2011 for Air Permit No. 10139R01. The 2011 application demonstrated that several of the 02Q .0711 Toxic Permit Emission Rates (TPERs) would be exceeded for the first-time. With that application, the facility requested the addition of the paper machine, TAD1, TAD2, pulpers, boiler and emergency generator No. 2 to the facility operations. Since then, the emergency generator No. 2 has been removed from the air permit. The three pollutants that exceeded the TPERs were chloroform, ethylene oxide, and formaldehyde. To support the addition of the new equipment, the facility submitted a dispersion modeling analysis, which was received by the Air Quality Analysis Branch (AQAB) on September 6, 2011. In this analysis, Clearwater Paper maximized emission rates that allowed for compliance with the Acceptable Ambient Levels (AALs). The TAP emission rates for the boiler, two emergency generators and firewater pump engine were not maximized in this analysis.

As part of the first-time Title V permit application received by NC DAQ on February 18, 2013, the facility submitted revised modeling, which was based on maximum potential emissions. The emission rates were optimized for all TAPs to correspond to a maximum of 98% of each toxic's AAL. The combustion source emission rates were not optimized. Compliance with the AALs was demonstrated for all toxics modeled. The results of the modeling analysis were approved in a March 4, 2013 Approval Memorandum from Mr. Alex Zarnowski, AQAB.

Since the issuance of the Approval Memorandum, Air Permit Nos. 10139R03 and 10139R04 have been issued to the facility. The permit review dated September 20, 2013 for Air Permit No. 10139R03 discusses that the addition of the Household Towel Line 5 to the converting building resulted in a small increase in TAP emissions but the actual emissions from the facility remained below the TAP emission limits in Air Permit No. 10139R02. Specifically, ethylene oxide from that modification exceeded the TPER but the modeled limit for the converting building where the new Household Towel Line 5 was to be installed was not exceeded. The addition of the Household Towel Line 5 brought the potential emission rate for the converting building to 0.0034 lb/hr, which was still well below the modeled rate contained in Air Permit No. 10139R02.

The permit review dated June 13, 2014 for Air Permit No. 10139R04 discusses that the addition of the Bath/Towel Line 6 (ID No. BHT-5) to the converting building resulted in a small increase of TAP emissions but actual emissions from the facility remained below the TAP emission limits in Air Permit No. 10139R03. Specifically, ethylene oxide emissions exceeded the TPER but the modeled limit for the converting building where the new Bath/Towel Line 6 was installed was not exceeded.

Even with the addition of the Bath/Towel Line 6 the potential emission rate of ethylene oxide for the converting building was still well below the modeled rate of 0.0107 lb/hr contained in Air Permit No. 10139R03.

The facility's current permit contains TAP emission limitations and reporting requirements pursuant to 02D .1100 and in accordance with the approved application (Approval Memorandum dated March 4, 2013) for an air compliance demonstration as shown in the table below. In addition, TAPs are listed in the application that have not yet exceeded the TPERs that are listed under 02Q .0711.

Affected Source(s)	Toxic Air Pollutant	CAS No.	Emission Limit(s) (lbs/hour)
Pulper (used for broke) (ID No. IS-CPDPULP01) Virgin Pulper No. 1 (ID No. IS-CPDPULP02) Virgin Pulper No. 2 (ID No. IS-CPDPULP03)	Toluene	108-88-3	846
Paper Machine (ID No. CPDPM01) TAD No. 1 (CPDTAD1S01)	Ammonia Benzene Ethylene Oxide Formaldehyde Toluene	7664-41-7 71-43-2 75-21-8 50-00-0 108-88-3	23.0 0.463 6.22×10^{-7} 4.71 29.6
Paper Machine (ID No. CPDPM01) TAD No. 2 (CPDTAD1S02)	Ammonia Benzene Ethylene Oxide Formaldehyde Toluene	7664-41-7 71-43-2 75-21-8 50-00-0 108-88-3	23.0 0.242 6.22×10^{-7} 2.47 15.5
Paper Machine (ID No. CPDPM01) Vacuum (CPDVACS01)	Ammonia Ethylene Oxide	7664-41-7 75-21-8	104.0 2.8×10^{-6}
Paper Machine (ID No. CPDPM01) Former Mist (CPDFORMERS01)	Ammonia Ethylene Oxide	7664-41-7 75-21-8	104.0 2.8×10^{-6}
Paper Machine (ID No. CPDPM01) TAD Mist (CPDTADS01)	Ammonia Ethylene Oxide	7664-41-7 75-21-8	23.0 6.22×10^{-7}
Converting Building Fugitives (ID No. CONVERT)	Acetaldehyde Ammonia Benzene 1,4-Dioxane Ethylene Oxide Formaldehyde Toluene	75-07-0 7664-41-7 71-43-2 123-91-1 75-21-8 50-00-0 108-88-3	232.0 26.0 4.09×10^{-4} 26.1 1.07×10^{-2} 1.59 6.77×10^{-2}
Boiler (ID No. CPDBOIL01)	Benzene Formaldehyde Toluene	71-43-2 50-00-0 108-88-3	1.59×10^{-4} 5.66×10^{-3} 2.57×10^{-4}

Affected Source(s)	Toxic Air Pollutant	CAS No.	Emission Limit(s) (lbs/hour)
Generator No. 1 (ID No. IS-CPDEG01)	Acetaldehyde	75-07-0	$1.82x10^{-3}$
	Acrolein	107-02-8	$1.71x10^{-3}$
	Benzene	71-43-2	$1.03x10^{-3}$
	Benzo(a)pyrene	50-32-8	$9.18x10^{-5}$
	1,3-Butadiene	106-99-0	$4.32x10^{-4}$
	Formaldehyde	50-00-0	0.0133
	Methylene Chloride	75-09-2	$2.68x10^{-5}$
	1,1,2,2-Tetrachloroethane	79-34-5	$1.65x10^{-5}$
	Toluene	108-88-3	$3.63x10^{-4}$
	Styrene	100-42-5	$7.75x10^{-6}$
	Xylene (mixed isomers)	1330-20-7	$1.27x10^{-4}$
Fire Water Pump (ID No. IS-CPDFP01)	Acetaldehyde	75-07-0	$8.6x10^{-5}$
	Acrolein	107-02-8	$2.7x10^{-5}$
	Benzene	71-43-2	$2.7x10^{-3}$
	Formaldehyde	50-00-0	$2.7x10^{-4}$
	Toluene	108-88-3	$9.6x10^{-4}$
	Xylene (mixed isomers)	1330-20-7	$6.6x10^{-4}$

The applicant has requested that the toxics emissions from the pulpers be modified to remove references to acetaldehyde, chloroform, formaldehyde, and methylene chloride as part of the processing of the first-time Title V application. They note that as originally modeled, the sources were based on the use of sodium hypochlorite as the de-inking chemical. However, the facility no longer uses that chemical and has substituted a non-chlorine solvent (Oxzone). Proper MSDS sheets have been presented in the application for this material substitution; therefore, this engineer agrees with the request to remove those toxics which are no longer expected to be emitted from these sources.

8. Facility Emissions Review

The potential facility-wide emissions for this permit are shown in the following table and were provided by the facility in Form D1, Facility-Wide Emissions Summary, contained in the most recent permit application (Application No. 2300377.14A) for Air Permit No. 10139R04.

The facility also submitted an emission inventory of 2014 actual emissions and the pollutant totals are provided in the header to this permit review, as shown above.

D1

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE			
	EXPECTED ACTUAL EMISSIONS (AFTER CONTROLS / LIMITATIONS)	**POTENTIAL EMISSIONS** (BEFORE CONTROLS / LIMITATIONS)	**POTENTIAL EMISSIONS** (AFTER CONTROLS / LIMITATIONS)
AIR POLLUTANT EMITTED	tons/yr	tons/yr	tons/yr
PARTICULATE MATTER (PM)	34.5 **[*Note A*]**	401.6**[*Note A*]**	34.5**[*Note A*]**
PARTICULATE MATTER < 10 MICRONS (PM_{10})	228.1	228.1	228.1
PARTICULATE MATTER < 2.5 MICRONS ($PM_{2.5}$)	228.1	228.1	228.1
SULFUR DIOXIDE (SO2)	0.5	0.5	0.5
NITROGEN OXIDES (NOx)	34.5	34.5	34.5
CARBON MONOXIDE (CO)	173.2	173.2	173.2
VOLATILE ORGANIC COMPOUNDS (VOC)	210.6 **[*Note B*]**	210.6 **[*Note B*]**	210.6 **[*Note B*]**
LEAD	-	-	-
CH_4	1.9	1.9	1.9

N_2O		2.4	2.4	2.4
CO_2		98,953	98,953	98,953
CO_2 Equivalent (CO_2e)		99,748	99,748	99,748
OTHER		**N/A**	**N/A**	**N/A**
HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE				
		EXPECTED ACTUAL EMISSIONS (AFTER CONTROLS / LIMITATIONS)	**POTENTIAL EMISSIONS** (BEFORE CONTROLS / LIMITATIONS)	**POTENTIAL EMISSIONS** (AFTER CONTROLS / LIMITATIONS)
HAZARDOUS AIR POLLUTANT EMITTED	CAS NO.	tons/yr	tons/yr	tons/yr
1,1,2,2-Tetrachloroethane	79-34-5	8.2E-07	8.2E-07	8.2E-07
1,3-Butadiene	106-99-0	2.2E-05	2.2E-05	2.2E-05
Acrolein	107-02-8	8.7E-05	8.7E-05	8.7E-05
Chloroform	67-66-3	1.6E+00	1.6E+00	1.6E+00
Cumene	98-82-8	1.4E-06	1.4E-06	1.4E-06
Ethylbenzene	100-41-4	8.1E-07	8.1E-07	8.1E-07
Methanol	67-56-1	4.9E-01	4.9E-01	4.9E-01
Methylene Chloride	75-09-2	7.2E-03	7.2E-03	7.2E-03
Naphthalene	91-20-3	1.0E-02	1.0E-02	1.0E-02
Benzo(a)pyrene	50-32-8	4.6E-06	4.6E-06	4.6E-06
Propionaldehyde	123-38-6	7.4E-03	7.4E-03	7.4E-03
Styrene	100-42-5	3.9E-07	3.9E-07	3.9E-07
Xylene (mixed isomers)	1330-20-7	3.9E-05	3.9E-05	3.9E-05
Ethylene glycol	107-21-1	1.0E-01	1.0E-01	1.0E-01
Benzene	71-43-2	2.0E-03	2.0E-03	2.0E-03
Toluene	108-88-3	2.8E-01	2.8E-01	2.8E-01
Acetaldehyde	75-07-0	1.7E-01	1.7E-01	1.7E-01
Diethanolamine	111-42-2	4.2E-02	4.2E-02	4.2E-02
Propylene oxide	75-56-9	3.0E-03	3.0E-03	3.0E-03
Ethylene Oxide	75-21-8	1.5E-02	1.5E-02	1.5E-02
1,4-Dioxane	123-91-1	1.5E-02	1.5E-02	1.5E-02
Formaldehyde	50-00-0	7.9E-02	7.9E-02	7.9E-02
	TOTAL:	2.8E+00	2.8E+00	2.8E+00

COMMENTS:

Note A: *The PM emissions total listed includes only the filterable (front half) PM portion for the Paper Machine (ID No. CPDPM01).*

Note B: *This VOC emission rate provides Clearwater with maximum flexibility in selecting inks, adhesives, and other materials required for efficient production while minimizing costs.*

D1

TOXIC AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE

INDICATE REQUESTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS. EMISSIONS ABOVE THE TOXIC PERMIT EMISSION RATE (TPER) IN 15A NCAC 02Q .0711 MAY REQUIRE AIR DISPERSION MODELING. USE NETTING FORM D2 IF NECESSARY.

					Modeling Required?		
TAPS EMITTED [*Note C*]	CAS NO.	lb/hr	lb/day	lb/year	Yes	No	
1,1,2,2-Tetrachloroethane	79-34-5	0.00	0.00	0.00		✔	
1,3-Butadiene	106-99-0	0.00	0.01	0.04		✔	
Acrolein	107-02-8	0.00	0.04	0.17		✔	
Chloroform	67-66-3	0.36	8.74	3188.64	✔		
Methylene Chloride	75-09-2	0.00	0.04	14.35		✔	
Benzo(a)pyrene	50-32-8	0.00	0.00	0.01		✔	
Styrene	100-42-5	0.00	0.00	0.00		✔	
Xylene (mixed isomers)	1330-20-7	0.00	0.02	0.08		✔	
Benzene	71-43-2	0.00	0.10	3.91		✔	
Toluene	108-88-3	0.06	1.55	552.36		✔	
Ammonia	7664-41-7	0.45	10.74	3918.42		✔	
Acetaldehyde	75-07-0	0.04	1.00	349.12		✔	

Ethylene Oxide	75-21-8	0.00	0.08	30.02	✔		
1,4-Dioxane	123-91-1	0.00	0.08	30.00		✔	
Formaldehyde	50-00-0	0.03	0.84	158.26		✔	

COMMENTS:

Note C: *Maximum emissions of these NC TAPs are calculated based on the current selection of inks, adhesives, and other materials to be used in the plant's converting lines, pulper, and paper machine, as well as on each unit's maximum anticipated production rate and fuel usage. To preserve flexibility in selecting alternative inks, adhesives, and other materials, Clearwater Paper requests that the air permit allow the maximum facility-wide emissions of each of these TAPs, up to its Modeled Emission Rate as shown in* ***Table 2*** *of the* ***Modeling Report*** *(in Permit Application No. 2300377.13A), while ensuring that the facility remains a non-major source of HAP and VOC emissions.*

9. Compliance Status

DAQ has reviewed the compliance status of this facility. During the most recent inspection, conducted on June 17, 2015 by Ms. Carlotta Adams of the MRO, the facility appeared to be in compliance with all applicable requirements. In addition, a signed Title V Compliance Certification (Form E5) was included with the permit application and indicated that the facility was in compliance with all applicable requirements.

10. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT first-time Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 02Q .0522, a notice of the DRAFT first-time Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. The State of South Carolina and the Mecklenburg County Local Program are affected programs within 50 miles of the facility and will be notified accordingly.

11. Other Regulatory Considerations

- Pursuant to 15A NCAC 02Q .0112 "Application requiring a Professional Engineering Seal", a professional engineer's seal (P.E. seal) was required for this application. The application was sealed on February 13, 2013 by Mr. Ted S. White of RTP Environmental Associates, Inc., P.E. Seal #16884. A search of the Registrant Directory website for the NC Board of Examiners for Engineers and Surveyors – License Lookup yielded the following information.

  Ted S. White
  105 Wilcrest Dr.
  Fuquay-Varina, NC 27526
  License: 016884
  Status: CURRENT
  Expires: 12/31/2016

- A zoning consistency determination was not required for this application. However, the facility did submit two Zoning Consistency Determination forms signed by officials with the City of Shelby, North Carolina and with Cleveland County.

12. Comments and Recommendations

- Mr. Mark Cuilla of RCO provided comments on the draft permit and permit review documents by email on February 26, 2016. Subsequently, the documents were updated with these revisions.

- Mr. Ted White of RTP Environmental Associates, Inc. on behalf of Clearwater Paper provided the following comments on the draft permit and associated technical review prior to the public notice period. NC DAQ's Permitting Section responses are included.

Clearwater Paper comments on Preliminary Draft Air Permit

No.	Comment	Location	NC DAQ Response
1	Throughout permit, include references to all applications being processed as part of this first-time Title V application.	Cover Letter	Agree; cover letter has been modified to reference applications 2300377.13A, 15A, and 16A including receipt dates.
2	We request that the following sentence in the transmittal letter be deleted: Additionally, any emissions activities determined from your Air Quality Permit Applications as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." If this sentence is not deleted, please change "ATTACHMENT." to "Attachment I."	Cover Letter	DAQ will amend cover letter to reference Attachment I for the list of activities that qualify as insignificant per 15A NCAC 02Q .0503(8) only. Permit cover letter shell language will not be removed as requested.
3	We request that Attachment I be deleted from the letter because it does not contain all of the 02Q .0503(8) insignificant activities listed in our applications dated 2/14/13 and 3/23/16. If it is not deleted, please revise this table as follows: 1. Remove all entries (except the two Internal Combustion Engines) from this table and add them back into the permit as significant activities. 2. Add the insignificant activities shown in the 3/23/16 application to this table. 3. Add a footnote stating that there are additional 02Q .0503(8) insignificant activities in our Title V application dated 2/14/13 that are not listed in this table.	Attachment I	DAQ will amend Attachment I for the list of activities that qualify as insignificant per 15A NCAC 02Q .0503(8) only. The final modified list incorporates the Permittee's request to add back to the permit items originally listed in the first draft as being eligible for insignificant status. The Permittee provided emission calculations for all items. (Sources will be added to the equipment list of permitted sources as they currently appear in permit No. 10139R04).

No.	Comment	Location	NC DAQ Response
4	Please revise Attachment II once all additional changes are made to the draft permit.	Attachment II	Agree; table of changes has been modified to address all required changes as a result of drafting this first-time Title V permit.
5	Change heading **Control Device ID No.** to **Add-On Control Device ID No.**	Equipment table	Disagree; table format is consistent with Title V permit shell
6	Delete Pulping and Bleaching Operations containing **CPDPULP01** here and throughout permit. Add CPDS09 per application 16A.	Equipment table	Agree; source modifications have been incorporated as requested.
7-9	Delete Pulper **(ID No. CPDPULP01)** and add PVOH Make down System **(ID No. CPDS09)** throughout section.	2.1 A	Agree; source modifications have been incorporated as requested.
10, 18, 20 through 23	We request that you change these conditions to state: "Emissions testing for particulate matter is not required for these sources."	2.1 A.1.b 2.1 A.2.b 2.1 A.3.b 2.1 B.1.b 2.1 B.2.b 2.1 B.3.b	Disagree; While testing is not specifically required by permit for any of these permit conditions, NC DAQ reserves the right per 15A NCAC 2Q .0508(f) to require testing if the Director determines there is a need. Shell language will not be modified.
11	Change from "…unit for leaks." to "…unit for leaks, adding any leaks found to the maintenance list."	2.1 A.1.c.i	Disagree; additional requirement is not necessary. Permit condition already requires that results of inspection be kept in logbooks (see paragraph d of same condition).
12	Change from "…control devices are not inspected and maintained; and" to "…control devices are not inspected during one or more calendar months."	2.1 A.1.c.i	Disagree; shell language placement will be moved to later in the paragraph. Its intent is for noncompliance with both the monthly as well as the annual inspections.
13	Recommend deleting condition ii. It is redundant to condition i (both i and ii will identify leakage). If not deleted, see next comment.	2.1 A.1.c.ii	Disagree; the annual inspection requirement is meant to be an internal inspection. This will be modified to match current shell language.
14	Change from "an annual (for each 12 month period …" to "an annual (at least once during each 12 month period..."	2.1 A.1.c.ii	Disagree; clarifying language not necessary. Current shell language will remain.
15, 30	Change "logbook" to "log"	2.1 A.1.d 2.2 B.1.d	Disagree; current shell language will remain. The format of the logbook can be either written or electronic.

No.	Comment	Location	NC DAQ Response
16	Change second sentence to: "The log shall record the following: i. the date and time of each recorded action; ii. the results of each inspection; and iii. any variance from manufacturer's recommended actions including the corrections made."	2.1 A.1.d	Disagree; current shell language will remain.
17, 31	Change from "between July and December and July 30" to "between July and December; and a report postmarked on or before July 30"	2.1 A.1.f 2.2 B.1.e	Disagree; clarifying language is not necessary.
19	Correct ID Nos. of applicable equipment	2.1 A.3.a	Agree; change has been made.
24	Delete this condition, because keeping records for 5 years is already in the Standard Conditions. If not deleted, change from : "All records shall be maintained on-site for a period of two years…" to "All records shall be maintained on-site for a period of five years …" (Even though NSPS requires 2 years, Title V requires 5 years.)	2.1 B.4.c	Disagree; NSPS requirements shall be retained. This does not conflict with the Title V time periods associated to the maintenance of records.
25	Make the changes in the first line of the table of Toxic Air Pollutant limits, as shown in the attached markup.	2.2 A.2 (Table)	Agree; references to NC Air toxics emitted from the pulpers will be removed.
26	Replace all of condition i with: "The Permittee shall maintain a log (written or electronic format) on-site and make this log available to an authorized representative upon request."	2.2 A.2.b.i	Agree; language will be modified to read consistent with similar language in Section 2.1 of the permit.
27	Modify the recordkeeping language for NSPS IIII (for the fire pump engine) and NSPS JJJJ (for the emergency generator). This NSPS recordkeeping requirement will be sufficient to ensure compliance with 2.2 A.2.a.	2.2 A.2.b.ii	Agree; language will be modified to reflect NSPS language.
28	Recommend deleting this condition iii, because it is redundant to Section O of the General Conditions. Also, Section O requires that records be retained for 5 years.	2.2 A.2.b.iii	Disagree; NSPS requirement will be retained.

No.	Comment	Location	NC DAQ Response
29	Request that Condition c. be deleted, as it seems overly stringent for small emergency engines. The condition is not needed because all TAPS were modeled at the physical capacity of these engines to emit while operating at the maximum 100 hours per year. As such, the reporting required by this condition does not serve any purpose. Note that these emergency engines are also Insignificant Activities.	2.2 A.2.c	Disagree; units were modeled to ensure compliance with the specifically listed NC Air Toxics using a 100 hour per year limit. Note that potential for these units are typically calculated at 500 hours per year. Records of the number of hours is required.

Clearwater Paper comments on Preliminary Draft Air Permit Review

No.	Comment	Location	NC DAQ Response
R-1	Review Header – Include references to each permit application being processed as part of this first-time Title V permit	Header	Agree; header has been modified to reference applications 2300377.13A, 15A, and 16A including application types and receipt dates.
R-2 through R-9	Permittee submitted facility/process description changes.	Section 2	Agree; all facility/process descriptions accepted as suggested.
R-10	Modify application chronology to include references to application 16A.	Section 3	Agree; chronology section updated to add all new entries.
R-11	We request that the remainder of the Air Permit Review document be updated based on our application for minor modification dated 3/23/2016, and based on our comments above (and attached) on the draft Title V permit.	Sections 4 through 12	Agree; review re-drafted to include technical review of application 16A as necessary.
R-12	Correct TAD burner sizes and PM emissions associated with each burner	Section 5, 15A NCAC 02D .0515 discussion	Agree; corrections will be made to both permit and technical review as suggested.

The NC DAQ recommends the issuance of first-time Title V Air Permit No. 10139T05 to Clearwater Paper Corporation - Shelby Converting Plant.

Attachment I
Insignificant Emission Source(s) and Control Devices(s)
Specific Limitations and Conditions

The following text is being included here because these sources qualify as insignificant activities per 15A NCAC 02Q .0503(8). As a result the specific permit conditions currently written into permit No. 10139R04 (A.9, A.10 and A.15) are no longer required. This document may serve as an inspection tool for the corresponding units. While not specifically included in the permit, these requirements apply as written.

A. Natural gas-fired emergency generator No. 1 (ID No. IS-CPDEG01) and Diesel-fired fire pump engine (ID No. IS-CPDFP01)

The following table provides a summary of limits and standards for the insignificant emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
NMHC + NO_X CO	10 g/HP-hr 387 g/HP-hr **(ID No. IS-CPDEG01 only)**	15A NCAC 02D .0524 40 CFR Part 60, Subpart JJJJ
NMHC + NO_X particulate emissions	4.0 g/kW-hr (3.0 g/HP-hr) 0.20 g/kW-hr (0.15 g/HP-hr) **(ID No. IS-CPDFP01 only**	15A NCAC 02D .0524 40 CFR Part 60, Subpart IIII
Hazardous air pollutants	**IS-CPDEG01:** Comply with NSPS Subpart JJJJ; **IS-CPDFP01:** Comply with NSPS Subpart IIII;	15A NCAC 02D .1111 40 CFR Part 63, Subpart ZZZZ

1. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

Applicability [15A NCAC 02Q .0508(f), 40 CFR 60.4230(a)(4)(iv)]

a. For this natural gas-fired emergency generator No. 1 **(ID No. IS-CPDEG01)**, the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart JJJJ – "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**,"** including Subpart A "General Provisions."

General Provisions [15A NCAC 02Q .0508(f)]

b. Pursuant to 40 CFR 60 .4246, The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 3 of 40 CFR 60 Subpart JJJJ.

Emission Standards [15A NCAC 02Q .0508(f)]

c. The Permittee shall comply with the emission standards for the rated size of this natural gas-fired emergency generator No. 1 **(ID No. IS-CPDEG01)** in Table 1 to 40 CFR 60 Subpart JJJJ. [40CFR 60.4233(d), Table 1]

Testing [15A NCAC 02Q .0508(f)]

d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in condition c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f)]

e. The engine shall be equipped with a non-resettable hour meter. [40 CFR 60.4237(c)]

Compliance Requirements [15A NCAC 02Q .0508(b)]

f. The Permittee shall comply with the emission standards in condition c. by purchasing an engine certified to the emission standards in condition c. for the appropriate model year. [40 CFR 60.4243(b)(1)]

g. The Permittee shall operate and maintain the certified stationary SI internal combustion engine and control device (if included) according to the manufacturer's emission-related written instructions. The Permittee shall also meet the requirements as specified in 40 CFR Part 1068, subparts A through D, as they apply. If the engine settings are adjusted according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance. [40 CFR 60.4243(a)(1), (b)(1)]

h. The Permittee must operate and maintain the stationary SI ICE that achieve the emission standards as required in condition c. over the entire life of the engine. [40 CFR 60.4234]

i. In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) of below, is prohibited. If the engine is not operated according to the requirements in paragraphs (1) through (3) below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
   (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
   (2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (2).
      (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
      (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
      (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2) of this condition. Except as provided in paragraph (3)(i) of this condition, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
   (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
      (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
      (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
      (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
      (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
      (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.[40 CFR 60.4243(d)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the requirements in conditions e through i. are not met.

Recordkeeping [15A NCAC 02Q .0508(f)]

j. The Permittee shall keep the following records:
   i. All notifications submitted to comply with 40 CFR 60 and all documentation supporting any notification.
   ii. Maintenance conducted on the engine.
   iii. Documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
   iv. The hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 60.4245(a), (b) and 60.4243(a)(1)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the requirements in condition j. are not met.

Reporting [15A NCAC 02Q .0508(f)]

k. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit shall be clearly identified.

2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

Applicability [15A NCAC 02Q .0508(f), 40 CFR 60.4200(a)(2)(ii)]

a. For this diesel-fired fire pump engine **(ID No. IS-CPDFP01)**, the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," including Subpart A "General Provisions."

General Provisions [15A NCAC 02Q .0508(f)]

b. Pursuant to 40 CFR 60 .4218, The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 8 of 40 CFR 60 Subpart IIII.

Emission Standards [15A NCAC 02Q .0508(f)]

c. The Permittee shall comply with the emission standards in Table 4 of NSPS subpart IIII for all pollutants, for the same model year and maximum engine power for this engine. [40 CFR 60.4205(c)]

Fuel Requirements [15A NCAC 02Q .0508(f)]

d. The Permittee shall use diesel fuel in the engine with:
   i. a maximum sulfur content of 15 ppm; and
   ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b) and 40 CFR 80.510(b)]

Testing [15A NCAC 02Q .0508(f)]

e. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in conditions c. and d. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f)]

f. The engine has the following monitoring requirements:
   i. The engines shall be equipped with a non-resettable hour meter prior to startup. [40 CFR 60.4209(a)].
   ii. The engine, if equipped with a diesel particulate filter, must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40 CFR 60.4209(b)].

Compliance Requirements [15A NCAC 02Q .0508(b)]

g. The Permittee shall:
   i. operate and maintain the engines and control devices according to the manufacturer's emission related-written instructions over the entire life of the engine;
   ii. change only those emission-related settings that are permitted by the manufacturer; and
   iii. meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. [40 CFR 60.4206 and 60.4211(a)]

h. The Permittee shall comply with the emission standards in condition c. by purchasing an engine certified to the emission standards in condition c. The engine shall be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]

i. In order for the engine to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non- emergency situations for 50 hours per year, as described below, is prohibited.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs i(2)(i) through (iii) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (i)(3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (i)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP–002–3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP–002–3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (i)(2) of this condition. Except as provided in paragraph (i)(3)(i) of this condition, the 50 hours per calendar year for non- emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [40 CFR 60.4211(f)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the requirements in conditions f. through i. are not met.

Recordkeeping [15A NCAC 02Q .0508(f)]

j. To assure compliance, the Permittee shall perform inspections and maintenance on the engine as recommended by the manufacturer per 40 CFR 60.4206 and 40 CFR 60.4211(a). The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the engine;
   iv. any variance from manufacturer's recommendations, if any, and corrections made;
   v. the hours of operation of the engine in emergency and non-emergency service. [40 CFR 60.4214(b)];
   vi. if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR60.4214(c)]; and
   vii. documentation from the manufacturer that the engine is certified to meet the emission standards in condition c.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

k. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit shall be clearly identified.

l. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in conditions (i)(2)(ii) and (iii) or that operates for the purposes specified in condition (i)(3)(i), the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). Thus report must be submitted to the Regional Supervisor and the EPA. [40 CFR 60.4214(d)]

3. 15A NCAC 02D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.6585, 6590(a)(2)(iii)]

a. For the natural gas-fired emergency generator No. 1 **(ID No. IS-CPDEG01)** and the diesel-fired fire pump engine **(ID No. IS-CPDFP01)** (new stationary RICE located at an area source of HAP emissions), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart ZZZZ, "National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

Stationary RICE subject to Regulations under 40 CFR Part 60 [15 A NCAC 02Q. 0508(f)]

b. Pursuant to 40 CFR 63.6590(c)(1), the natural gas-fired emergency generator No. 1 **(ID No. IS-CPDEG01)** and the diesel-fired fire pump engine **(ID No. IS-CPDFP01)** must meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR part 60 Subpart JJJJ and 40 CFR part 60 Subpart IIII, respectively. No further requirements apply for these engines under 40 CFR 63 Subpart ZZZZ and Subpart A. If the requirements in condition b. are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.